

# KIC 003117511

## Q1-17 DR25 TCE Parameters

| TCE          | Run Type | KOI? | Period (Days) | Epoch (BKJD) | Depth (ppm) | Duration (Hours) | MES | SNR | $R_{\star}$ ( $R_{\odot}$ ) | $T_{\star}$ (K) | $R_p$ ( $R_{\oplus}$ ) | $S_p$ ( $S_{\oplus}$ ) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 003117511-01 | OBS      | No   | 0.827067      | 131.733609   | 1.2         | 9.323            | 7.8 | 0.3 | 2.09                        | 7249            | 0.23                   | 28264.75               |

## Robovetter Results

| TCE          | Run Type | Disp | Score | N | S | C | E | Comments                      |
|--------------|----------|------|-------|---|---|---|---|-------------------------------|
| 003117511-01 | OBS      | FP   | 0.00  | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—CENT_FEW_DIFFS |

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

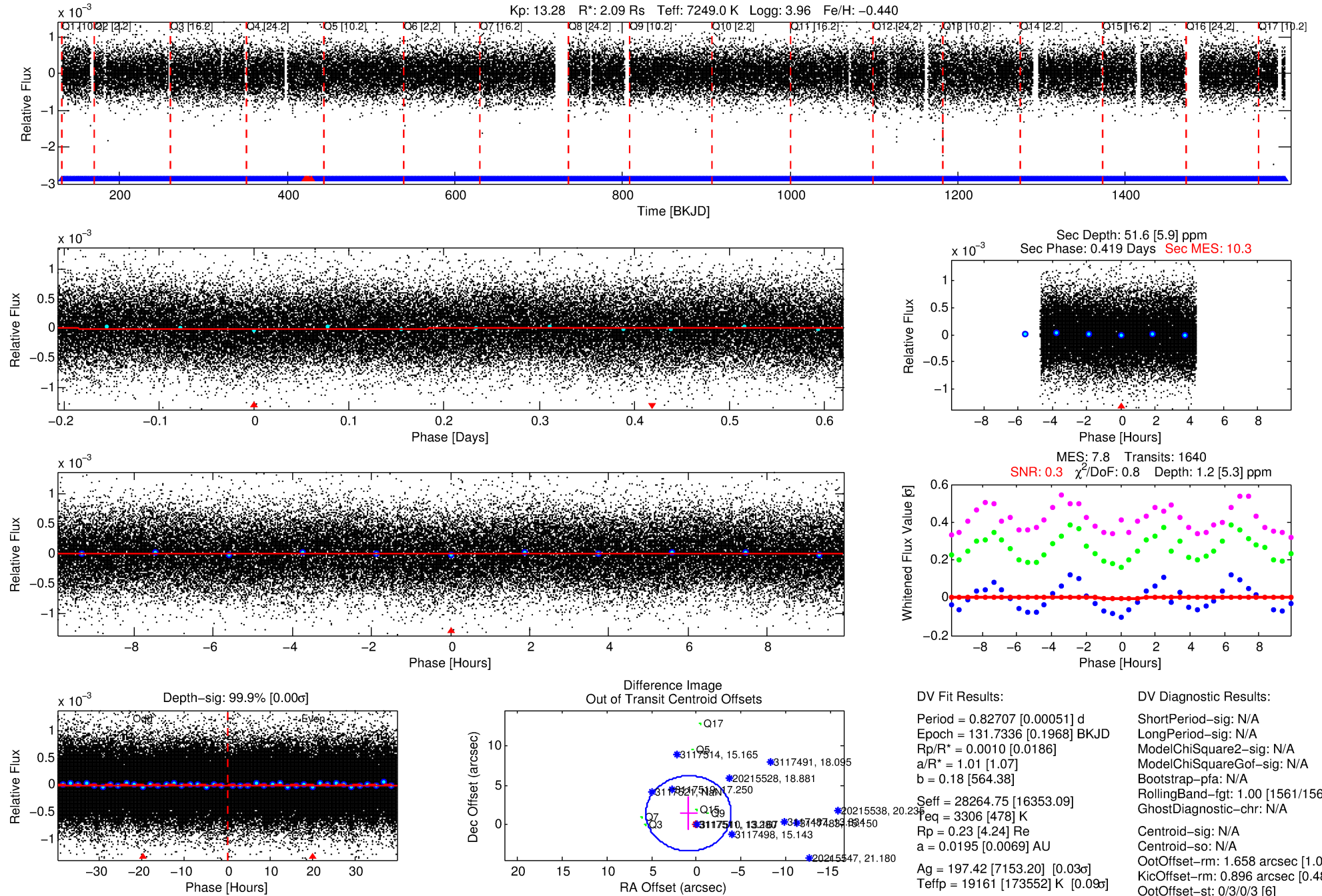
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003117511-01

No Significant Match Found

# DV One-Page Summary

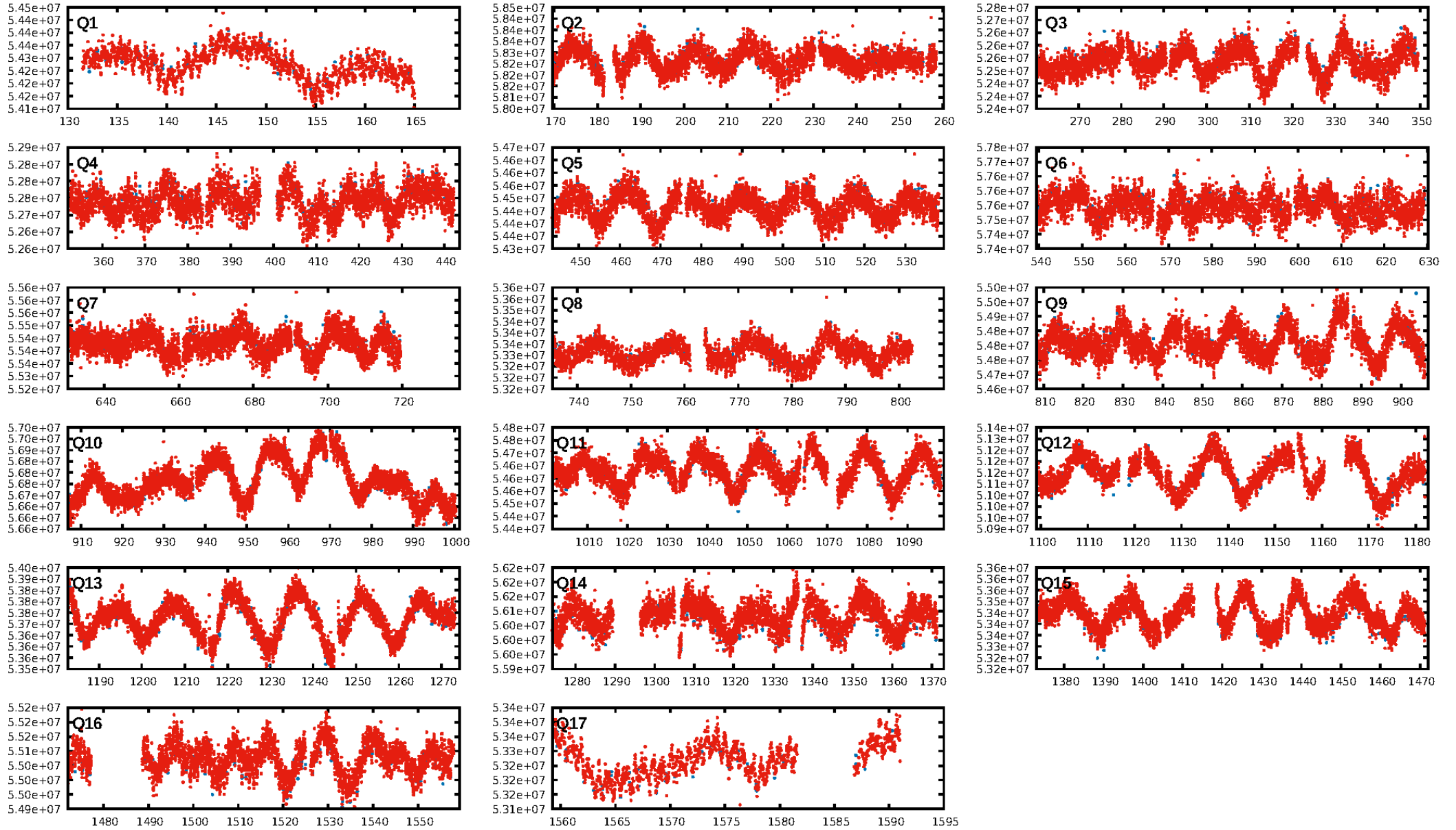
KIC: 3117511 Candidate: 1 of 1 Period: 0.827 d



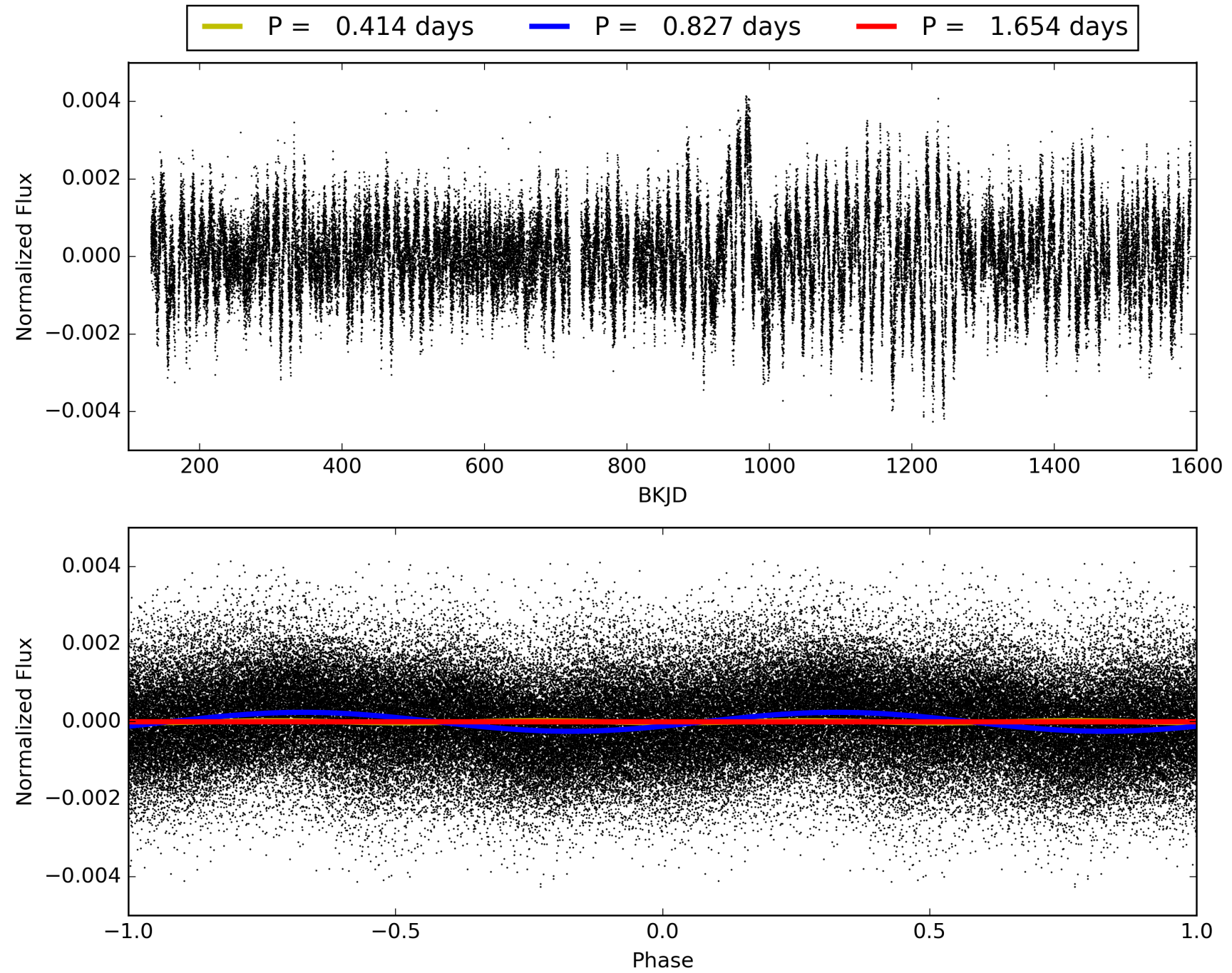
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 23:10:12 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 003117511-01, PDC Light Curves

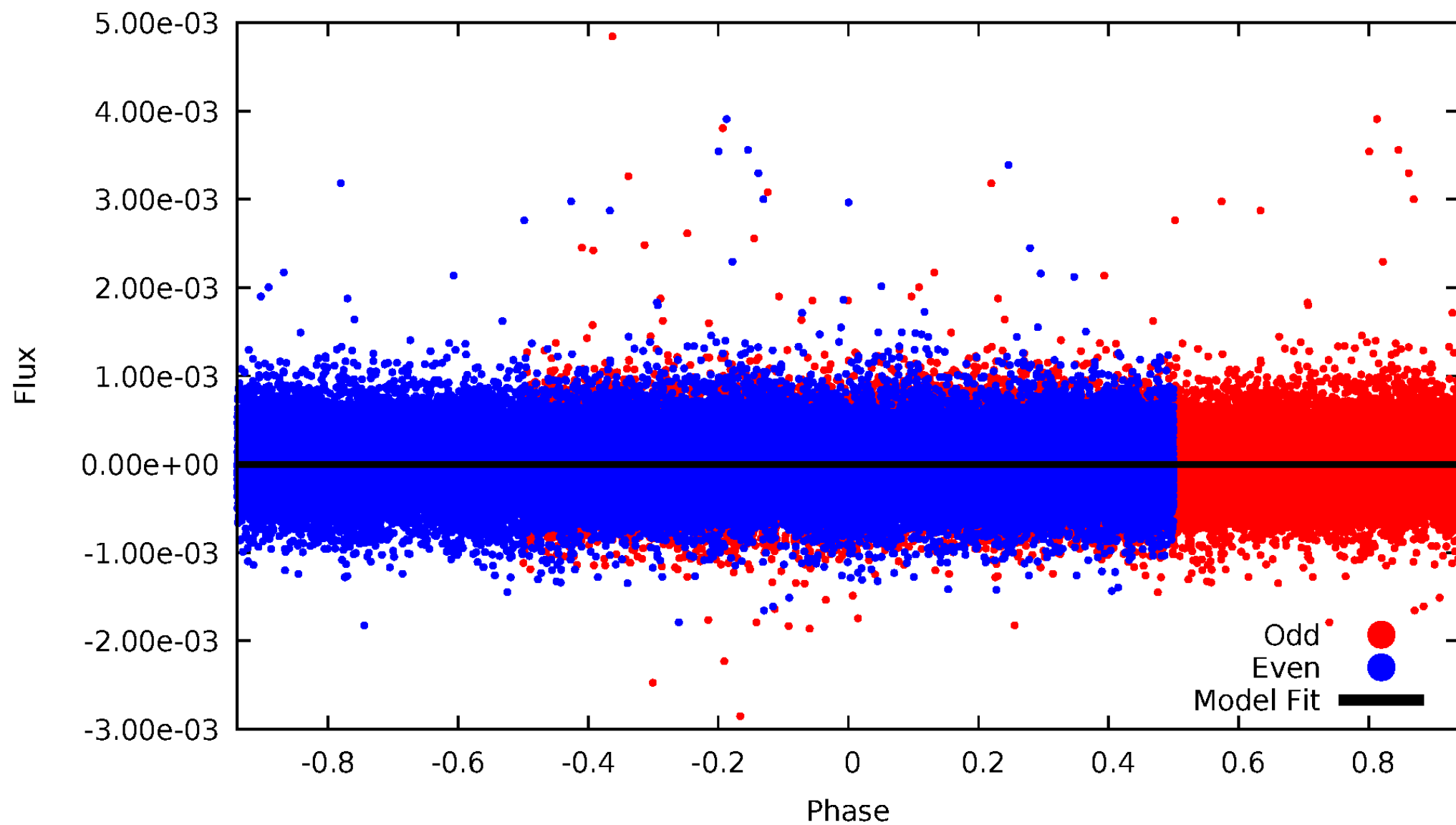


TCE 003117511-01



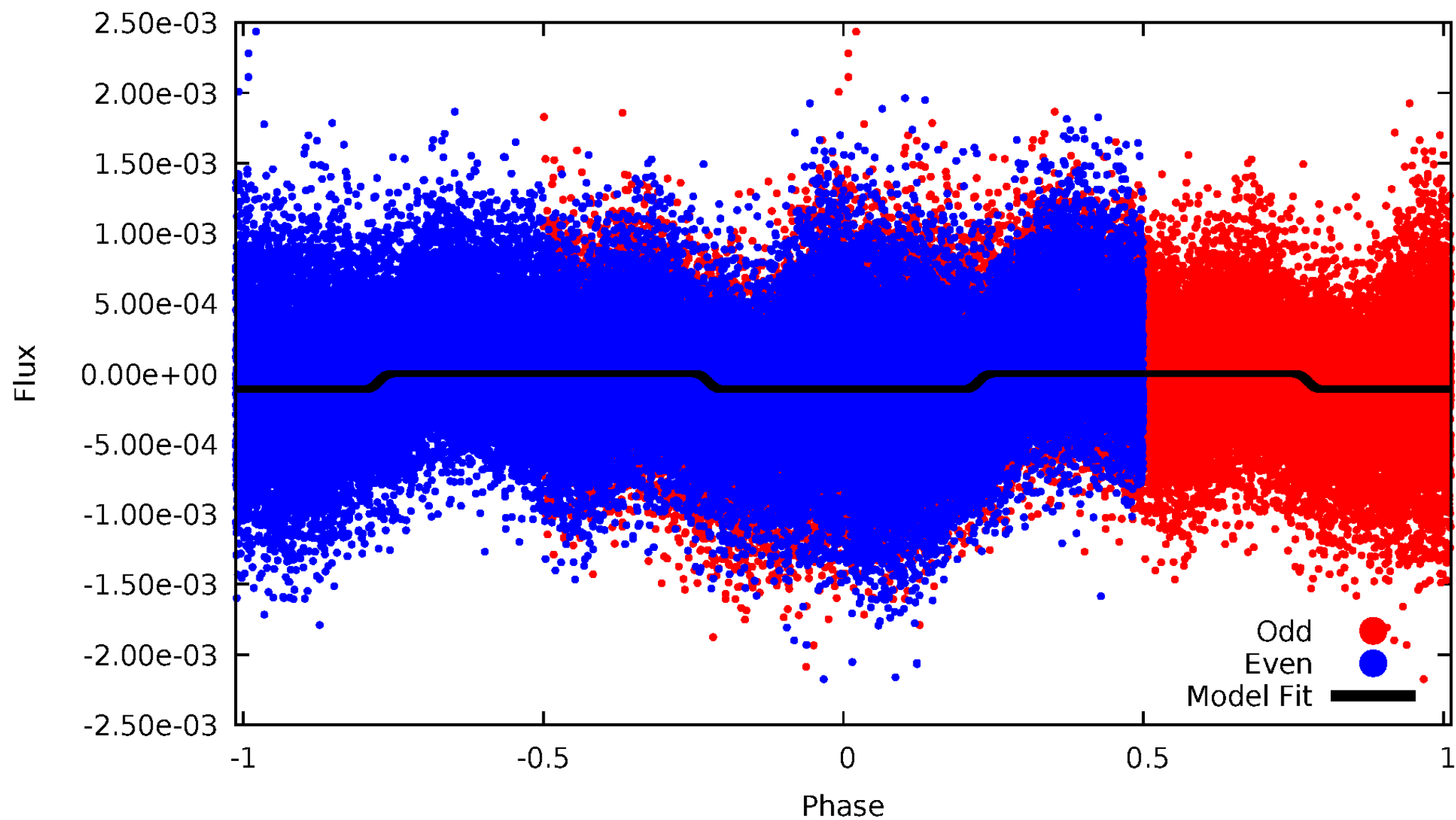
# DV Odd/Even

TCE 003117511-01



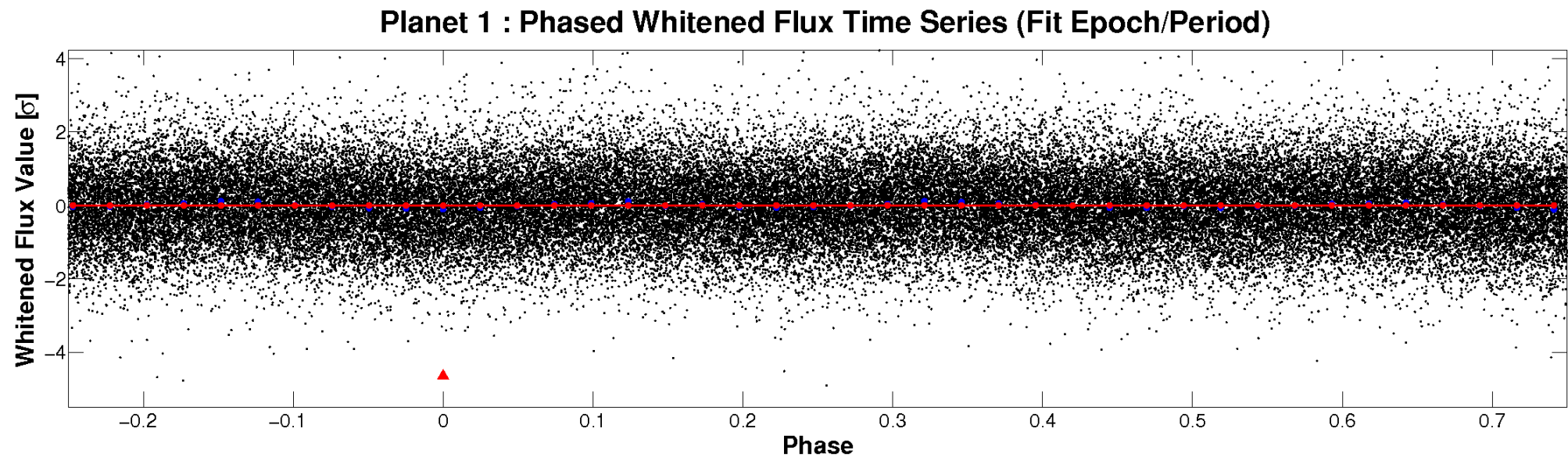
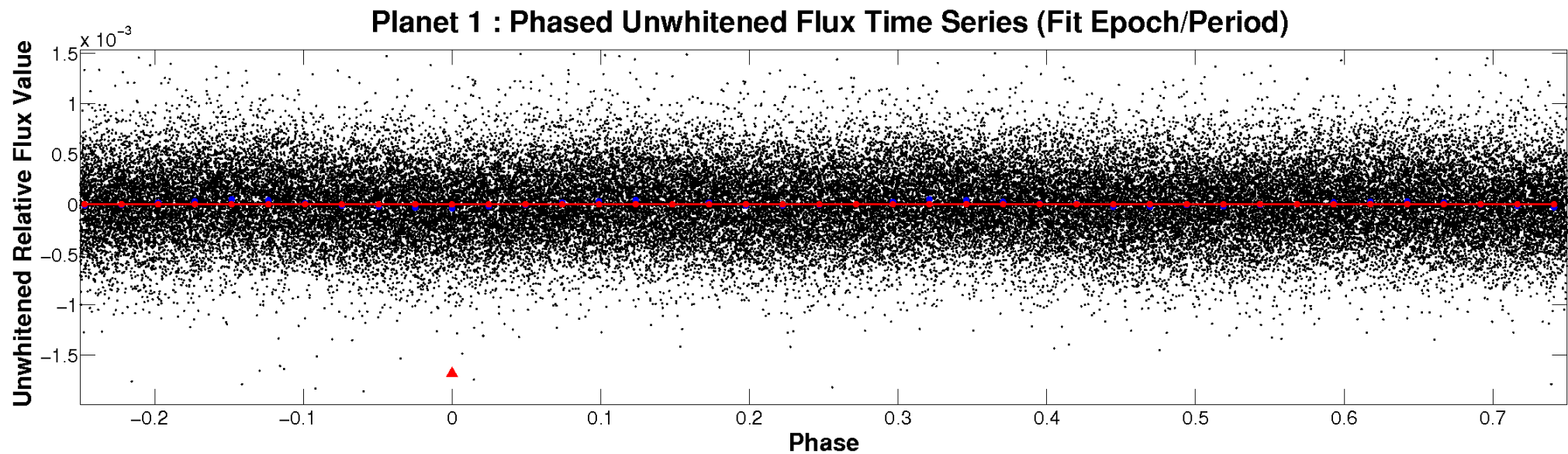
# ALT Odd/Even

TCE 003117511-01



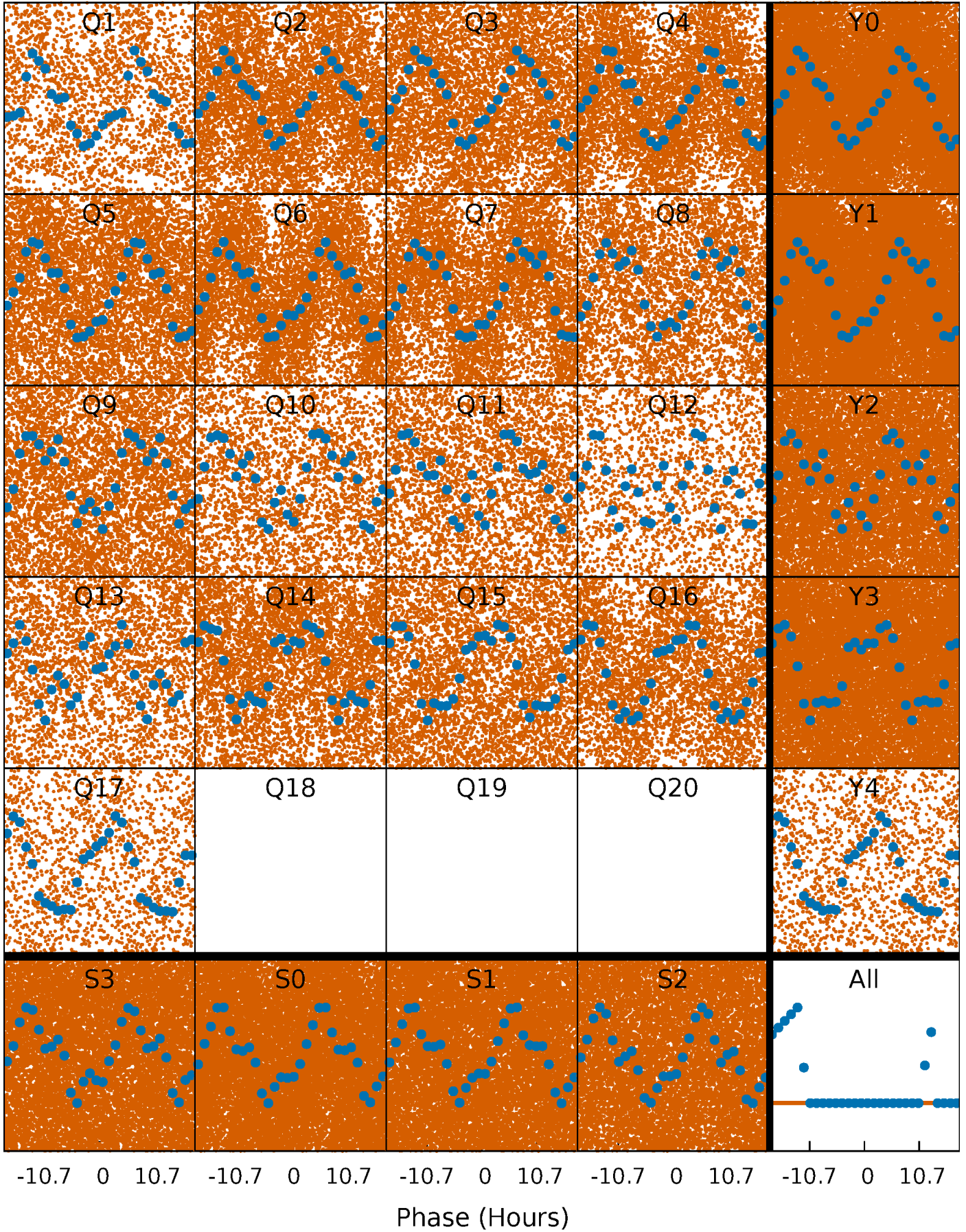


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

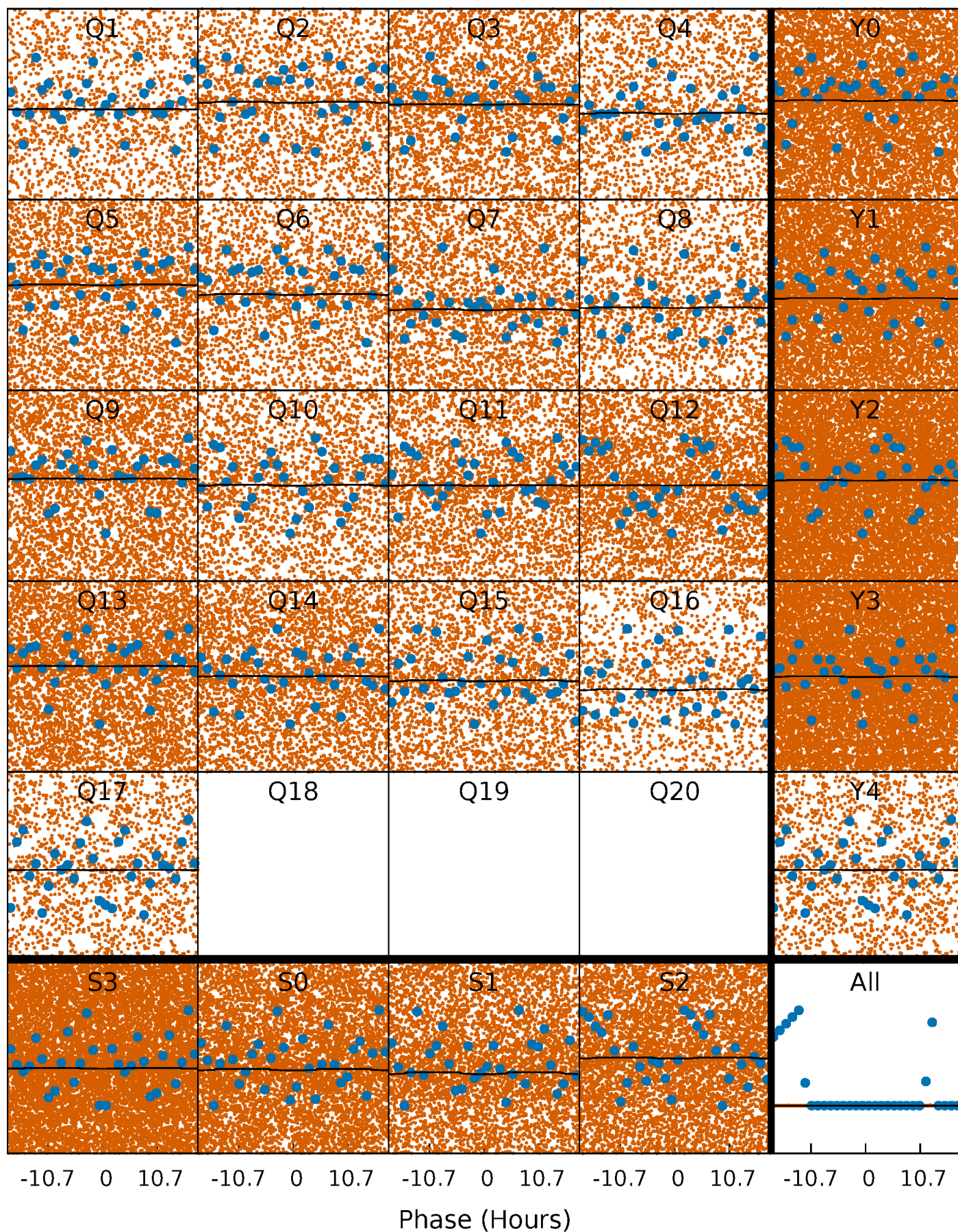
TCE 003117511-01   P= 0.827067 Days    $T_0=131.733610$  (BKJD)





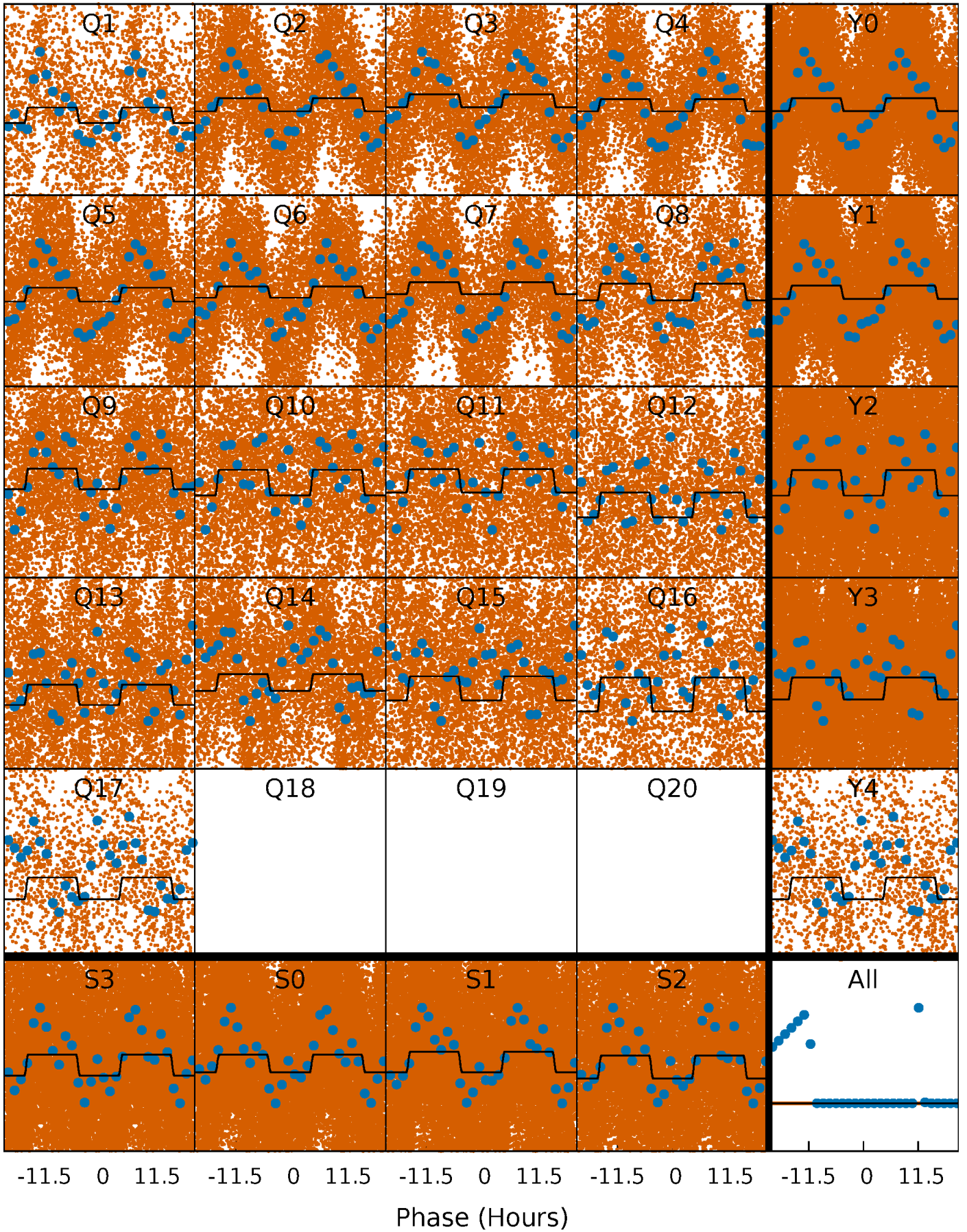
# DV Quarter-Phased Transit Curves

TCE 003117511-01 P= 0.827067 Days  $T_0=131.733610$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 003117511-01 P= 0.827009 Days  $T_0=131.725996$  (BKJD)

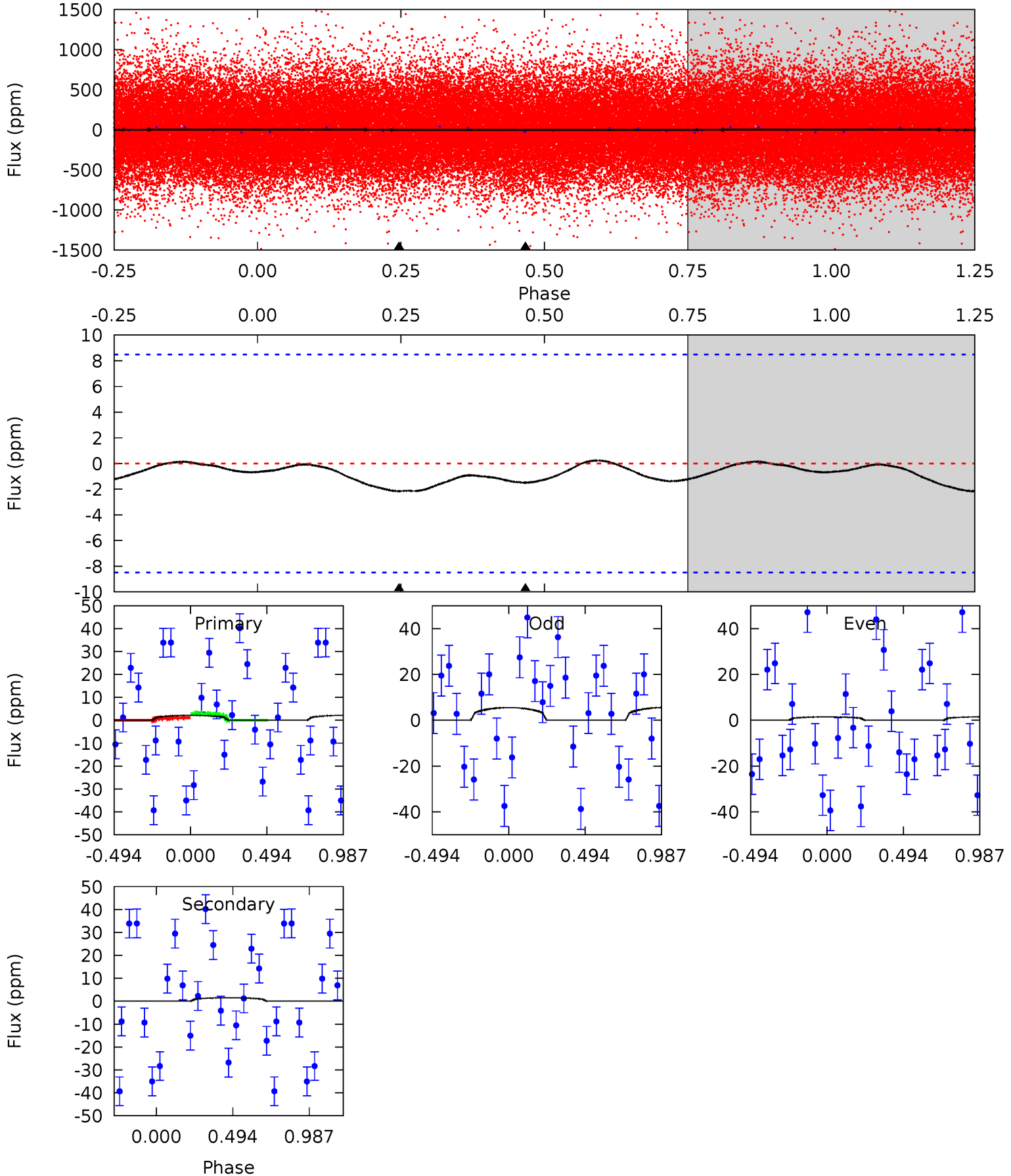




# DV Model-Shift Uniqueness Test

003117511-01, P = 0.827067 Days, E = 130.906543 Days

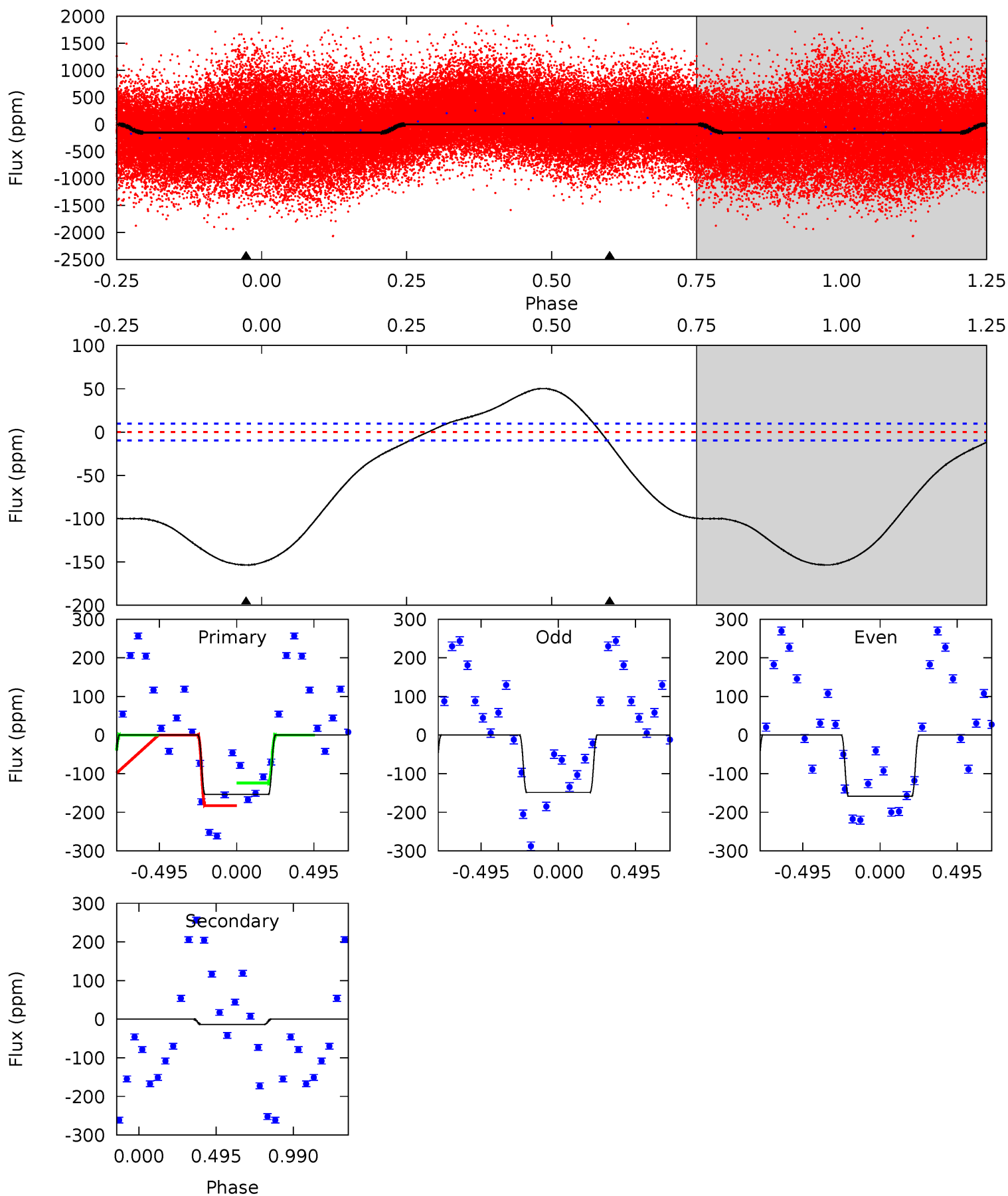
| Pri  | Sec  | Ter | Pos | FA <sub>1</sub> | FA <sub>2</sub> | F <sub>Red</sub> | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM  | Shape | TAT  |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 1.07 | 0.74 | 0   | 0   | 4.22            | 0.68            | 0.08             | 1.07    | 1.07    | 0.74    | 0.74    | 1.00    | 0.34 | 0.10  | 0.47 |



# Alt Model-Shift Uniqueness Test

003117511-01, P = 0.827009 Days, E = 130.898987 Days

| Pri  | Sec  | Ter | Pos | FA <sub>1</sub> | FA <sub>2</sub> | F <sub>Red</sub> | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM  | Shape | TAT  |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 66.4 | 5.82 | 0   | 0   | 4.22            | 0.68            | 3.85             | 66.4    | 66.4    | 5.82    | 5.82    | 2.13    | 1.16 | 0.25  | 13.0 |





### Stellar Parameters For KIC 003117511

|        | $T_{\text{eff}}(K)$  | $\log(g)$                 | $[\text{Fe}/\text{H}]$     | $R (R_{\odot})$           | $M(M_{\odot})$            | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
|        | $7249^{+228}_{-304}$ | $3.961^{+0.322}_{-0.138}$ | $-0.440^{+0.300}_{-0.300}$ | $2.089^{+0.521}_{-0.782}$ | $1.454^{+0.204}_{-0.306}$ | $0.225^{+0.532}_{-0.091}$                 |
|        | +3%/-4%              | +8%/-3%                   | +68%/-68%                  | +25%/-37%                 | +14%/-21%                 | +236%/-41%                                |
| Source | KIC0                 | KIC0                      | KIC0                       | DSEP                      |                           |   |

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 003117511-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$     | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$   | $A_{\text{obs}}$          |
|---------|-------------|------------------------|----------------------|------------------------|---------------------------|
| DV      | $-1\pm 2$   | $2.70^{+3.34}_{-1.80}$ | $4532^{+356}_{-425}$ | $-3875^{+6495}_{-311}$ | $0.027^{+0.299}_{-0.037}$ |
| Alt.    | $-13\pm 2$  | $3.56^{+3.57}_{-2.41}$ | $4534^{+363}_{-416}$ | $-3232^{+8793}_{-680}$ | $0.213^{+1.985}_{-0.162}$ |

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

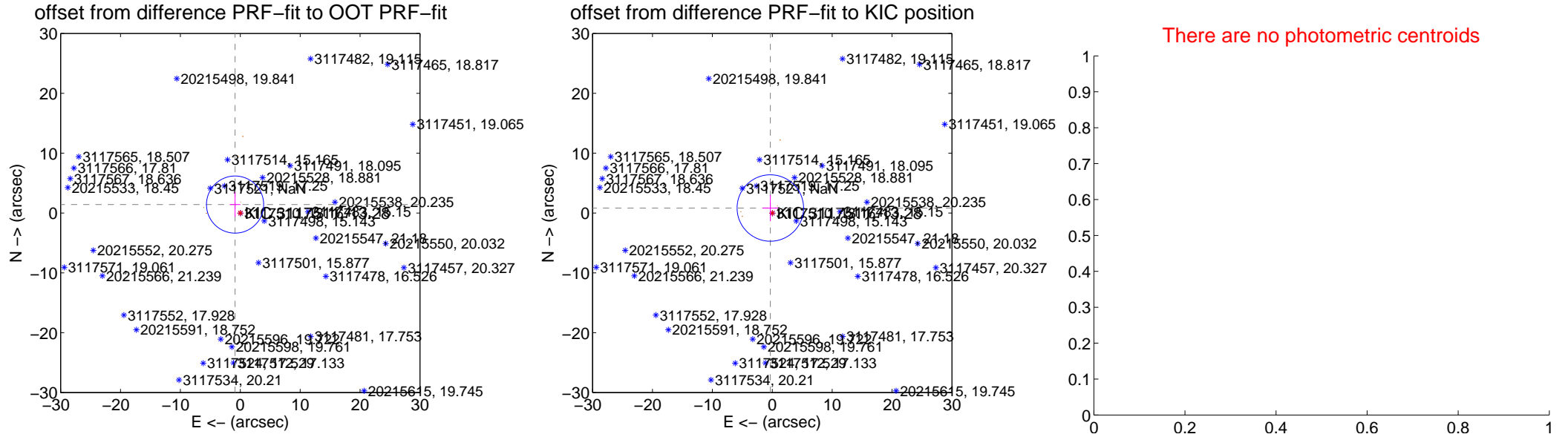
## DV Centroid Data

Supplemental centroid analysis for 003117511-01. Kepler magnitude: 13.28. Transit SNR 0.27

There are 1 quarters with good PRF difference image offsets

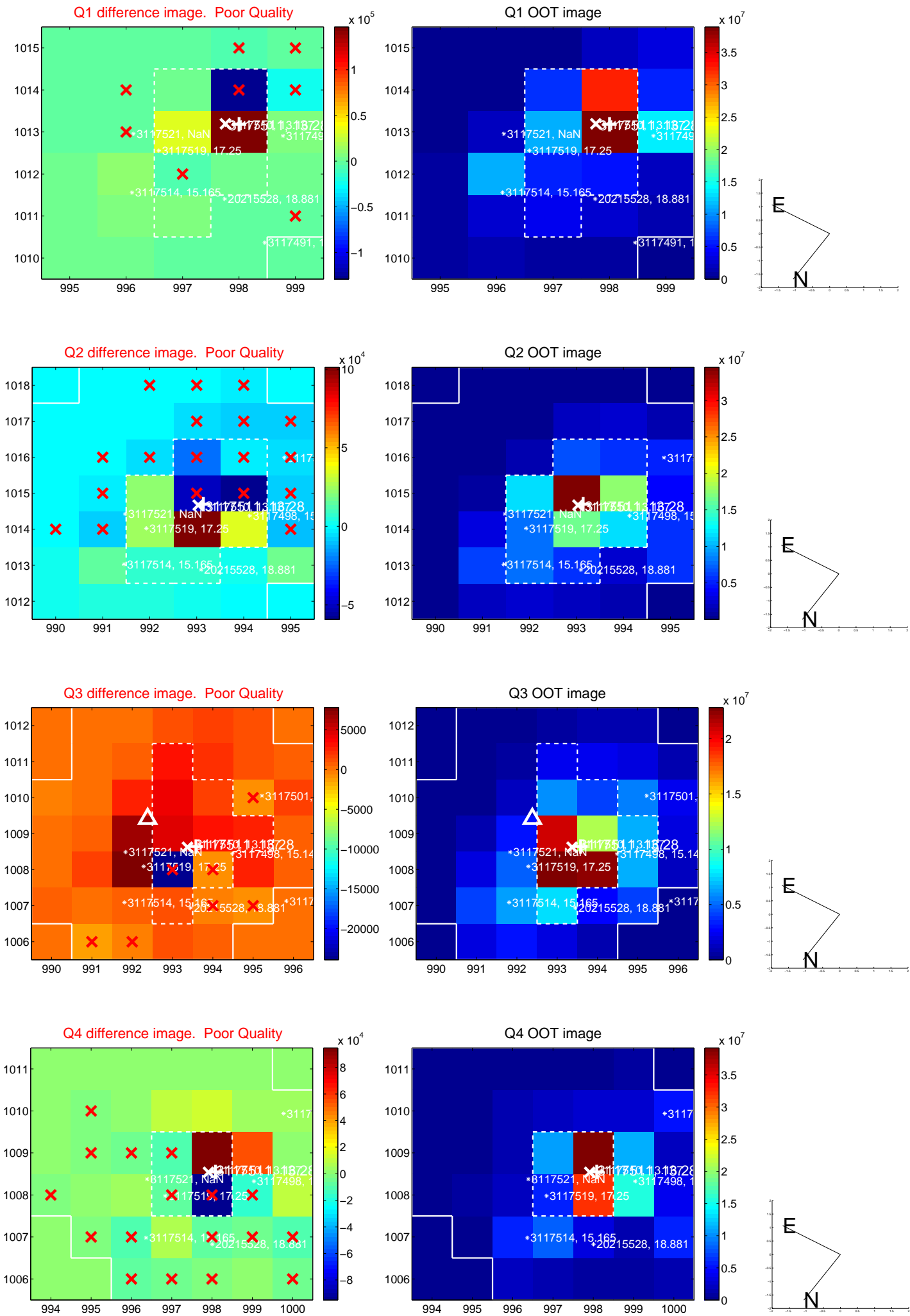
The direct PRF centroid is offset from the target star catalog position by about 1.07 arcsec

|   | Distance in arcsec | Distance / $\sigma$ | $\Delta$ RA       | $\Delta$ Dec      |
|---|--------------------|---------------------|-------------------|-------------------|
| PRF-fit source offset from OOT          | $1.658 \pm 1.591$  | 1.04                | $0.871 \pm 0.895$ | $1.411 \pm 2.067$ |
| PRF-fit source offset from KIC position | $0.896 \pm 1.850$  | 0.48                | $0.322 \pm 1.298$ | $0.835 \pm 2.154$ |
| photometric centroid source offset      | —                  | —                   | —                 | —                 |

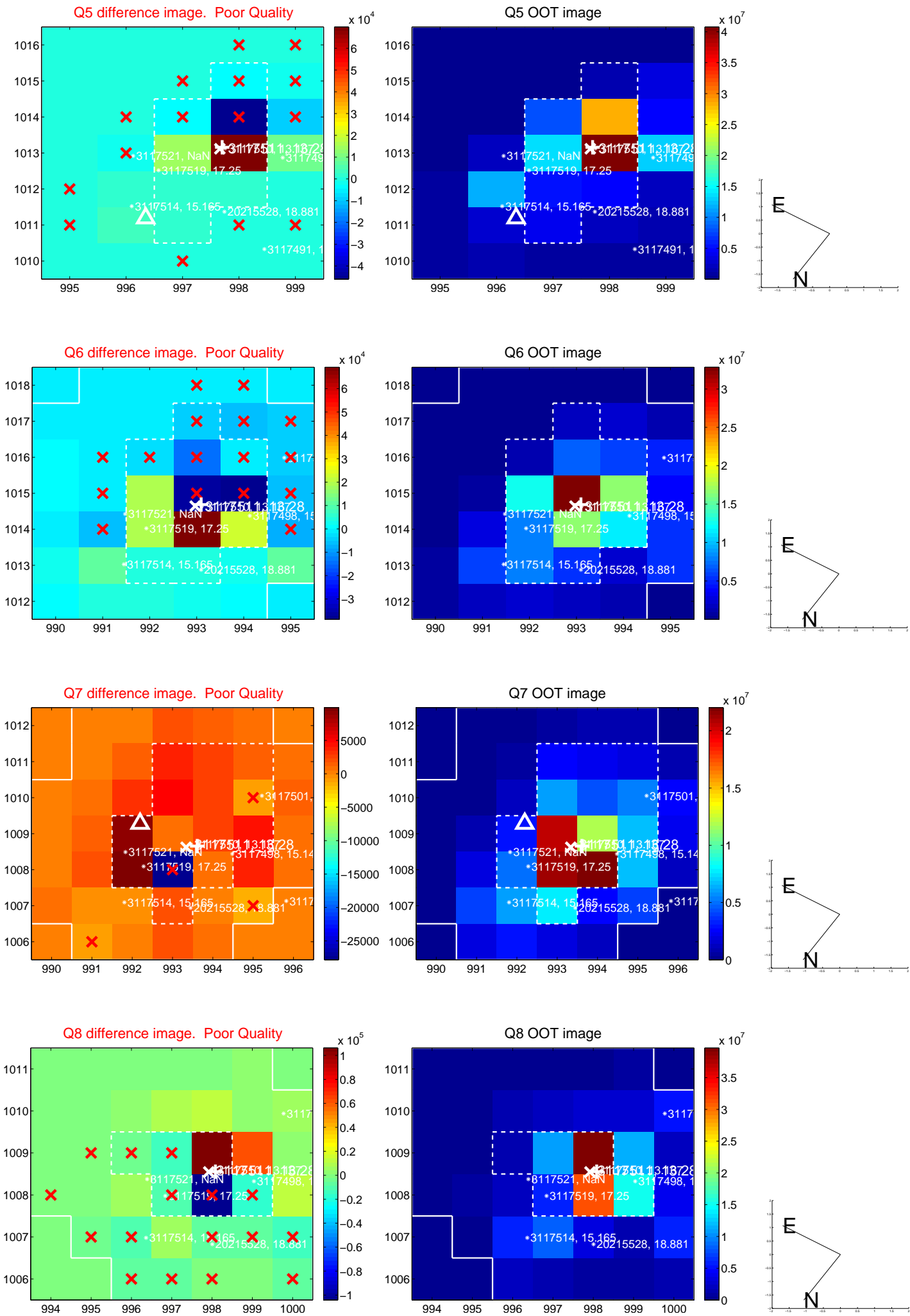


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



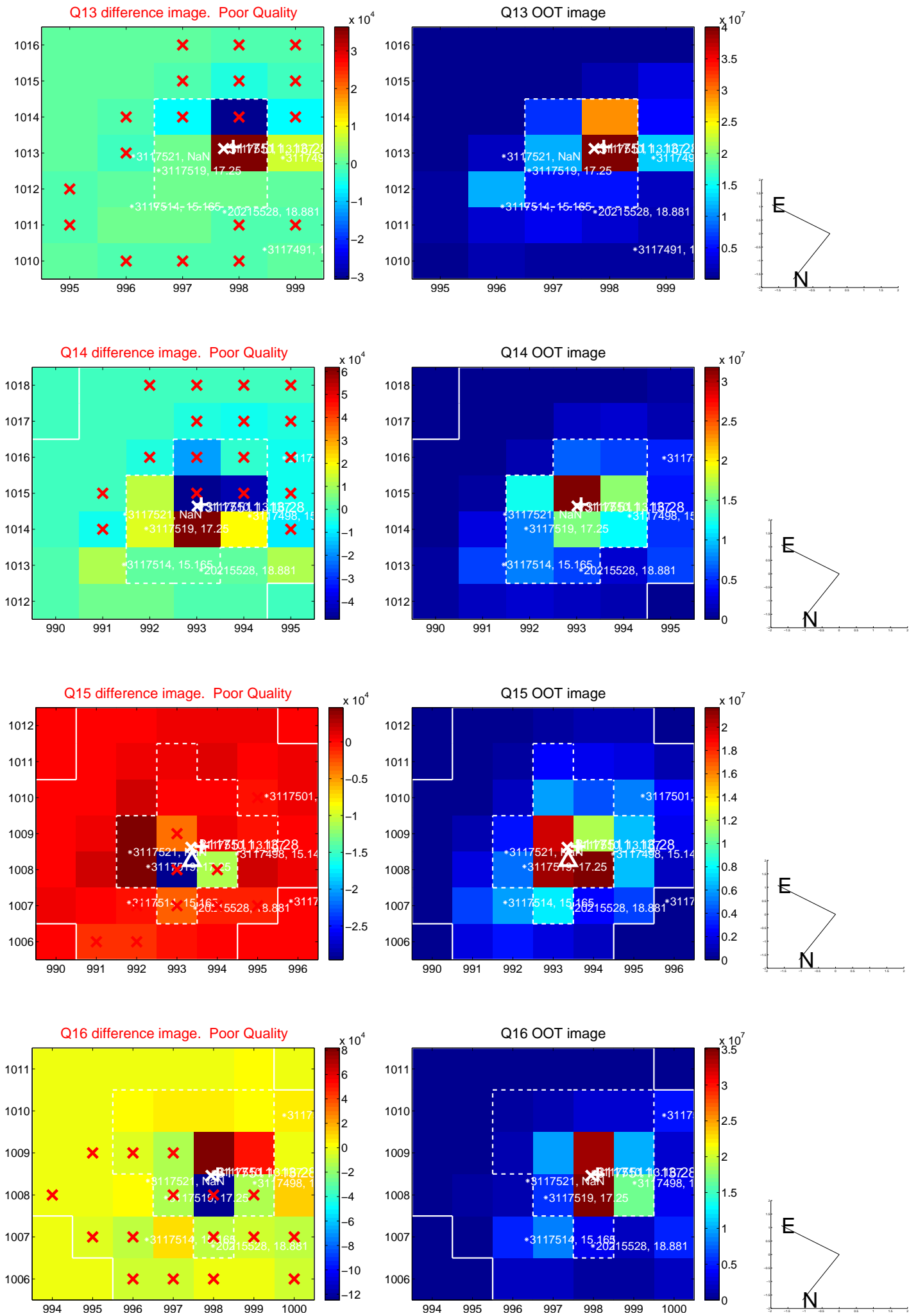
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



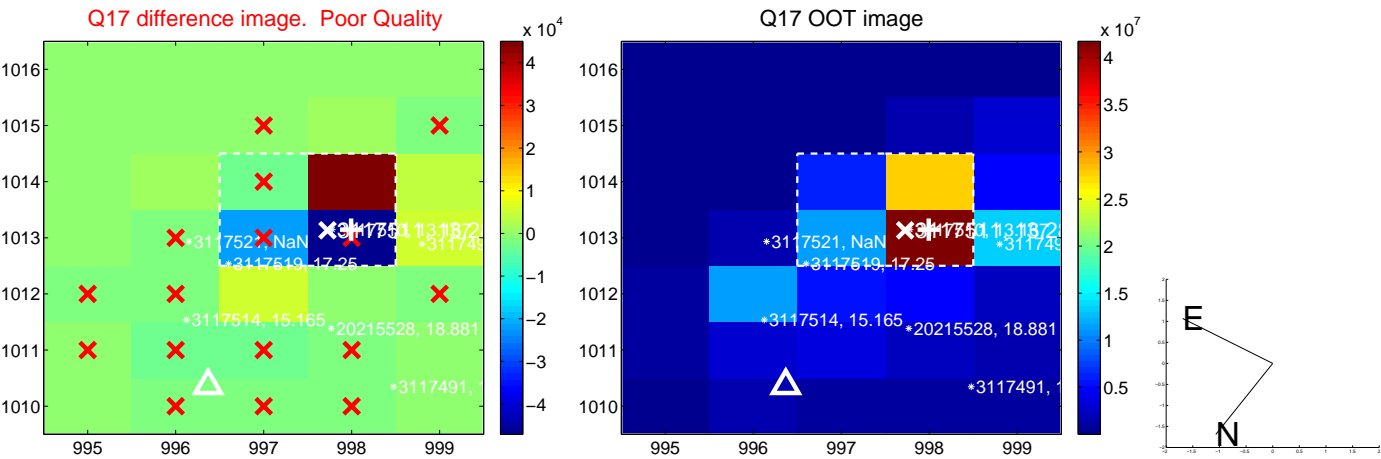




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

